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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,206	11/26/2003	Wei Fan	YOR920030392US1 (8728-652	8526

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EXAMINER	
OMOSEWO, OLUBUSOLA	
ART UNIT	PAPER NUMBER
2168	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/723,206	FAN ET AL.	
	Examiner	Art Unit	
	OLUBUSOLA ONI	2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6 and 8-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6 and 8-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This action is responsive to communications: Amendment filed on 01/08/2007

2. Claims 2-4, 6, 8, 9, 12 and 13 have been amended.

Allowable Subject Matter

3. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Wang et al. " A dynamic index method for querying Xml data by tree structures". Hereinafter "Wang".

As per claim 1, Wang teaches:

receiving one or more XML documents; {Section 1}

converting the one or more XML documents into one or more structure-encoded sequences; { Section 1, para 8, Section 2 "structure-encoded sequences"}

generating the ViST structure comprising: generating a D-Ancestor index {Section 1, para 8}; generating an S-Ancestor index {Section, para 8}; and generating a doc-ID index {Section 4, para 11 "index size and index construction time"}.

As per claim 2, Wang teaches:

The method of claim 1, wherein generating the D-Ancestor index comprises generating a D-Ancestor B+Tree, wherein the D-Ancestor B+Tree indexes one or more (key, data) pairs and wherein the key element is a unique (symbol, path) pair in the one or more structure-encoded sequences, and the data element is a pointer to an S-Ancestor B+Tree {Section 3.2-3.3}

As per claim 3, Wang teaches:

The method of claim 1, wherein generating the S-Ancestor index comprises generating an S-Ancestor B+Tree, wherein the S-Ancestor B+Tree indexes one or more keys, wherein each of the one or more keys is a pair [begin-ID,end-ID] {Section 3.3 "index construction –subsequence match"}

As per claim 4, Wang teaches:

The method of claim 3, wherein IDs of descendent nodes of a node whose label is (begin-ID,end-ID) are in the range of [begin-ID,end-ID] {Section 3.3}

As per claim 5, Wang teaches:

The method of claim 1, wherein generating a doc-ID index comprises generating a doc-ID B+Tree, wherein the doc-ID B+Tree indexes one or more (key,data) pairs and wherein the key element is a node ID, and the data element is a list of XML document Ids {Section 4, para 11 "index size and index construction time"}

As per claim 6, Wang teaches:

receiving an XML query; {Section 1}

transforming the XML query into a structure-encoded sequence{Section 1, para 8, Section 2 "structure-encoded sequences"};

searching a virtual suffix tree (ViST) structure using the structure-encoded sequence and returning one or more document Ids {Section 4, para 11 "index size and index construction time"}.

As per claim 8, Wang teaches:

receiving a new XML document; {Section 1}

transforming the XML document into a structure-encoded sequence; {Section 1, para 8, Section 2 "structure-encoded sequences"}

inserting each element of the sequence into D-Ancestor B+Tree;{Section 3.2-3.3} assigning a new label if the step of inserting creates a new node;{Section 3.2-3.3} and inserting the new label into the S-Ancestor B+Tree{Section 3.2-3.3}

As per claim 9, Wang teaches:

The method of claim 8, further comprising assigning a new label if the step of inserting creates a new node. {Section 3.3-3.4}

As per claim 10, Wang teaches:

The method of claim 8, wherein inserting the new label into the S-Ancestor B+Tree comprises inserting the new label (x,y) into the S-Ancestor B+Tree{Section {Section 3.3-3.4}

As per claim 11, Wang teaches:

receiving one or more XML documents; {Section 1}

converting the one or more XML documents into one or more structure-encoded sequences; { Section 1, para 8, Section 2 "structure-encoded sequences"} {Section 1, para 8}; generating an S-Ancestor index {Section, para 8}; and generating a doc-ID index {Section 4, para 11 "index size and index construction

time"}.

As per claim 12, Wang teaches:

receiving an XML query; {Section 1}

transforming the XML query into a structure-encoded sequence{Section 1, para 8, Section 2 "structure-encoded sequences"};

searching a virtual suffix tree (ViST) structure using the structure-encoded sequence and returning one or more document Ids {Section 4, para 11 "index size and index construction time"}.

As per claim 13, Wang teaches:

receiving a new XML document; {Section 1}

transforming the XML document into a structure-encoded sequence; {Section 1, para 8, Section 2 "structure-encoded sequences"}

inserting each element of the sequence into D-Ancestor B+Tree;{Section 3.2-3.3} assigning a new label if the step of inserting creates a new node;{Section 3.2-3.3} and inserting the new label into a S-Ancestor B+Tree{Section 3.2-3.3}

Response to Argument

6. The declaration under 37CFR 1.132 filed on 01/08/2007 is insufficient. The evidence of record contains contradictory information. The listing of a post-doctoral employee's name suggests inventive contribution, yet the declaration indicates no inventive contribution by the post-doctoral employee. However, this contradiction leads to a conclusion of insufficient evidence. The MPEP 716.10 states "a statement by the applicants regarding their inventorship in view of an article, patent, or published application may not be sufficient where there is evidence to the contrary". Ex parte Kroger, 218 USPQ 370 (Bd. App. 1982)
In re Katz, 687
F.2d 450, 455, 215 USPQ 14, 18 (CCPA 1982) (inquiry is appropriate to clarify any ambiguity created by an article regarding inventorship and it is then incumbent upon the applicant to provide "a satisfactory showing that would lead to a reasonable conclusion that [applicants] are the sole inventors" of the subject matter disclosed in the article and claimed in the application).
Listing the post-doctoral employee's name suggests a joint inventorship, however, the submitted declaration with the signature of all the applicants except for the post-doctoral employee's signature leads to a contradiction of the joint inventorship of the publication, which is also an insufficient evidence for withdrawing the reference.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUBUSOLA ONI whose telephone number is 571-272-2738. The examiner can normally be reached on 7.30-5.00PM.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIM VO can be reached on 571-272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TIM VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

OLUBUSOLA ONI KBP

Examiner

Art Unit 2168